BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALILEO ENDA

01-08-08 04:59 PM

Order Instituting Rulemaking Regarding Polices, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.

Rulemaking 06-03-004 (Filed March 2, 2006)

COMMENTS OF FAT SPANIEL TECHNOLOGIES, INC. AND ENERGY RECOMMERCE, INC. ON OPINION MODIFYING DECISION 06-08-028 REGARDING INDEPENDENT PERFORMANCE MONITORING AND REPORTING REQUIREMENTS

William W. Westerfield, III Ellison, Schneider & Harris, L.L.P. 2015 H Street

Sacramento, California 95814-3109 Telephone: (916) 447-2166

Facsimile: (916) 447-3512 Email: www@eslawfirm.com

Attorneys for Fat Spaniel Technologies, Inc.

January 8, 2008

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Polices, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.

Rulemaking 06-03-004 (Filed March 2, 2006)

COMMENTS OF FAT SPANIEL TECHNOLOGIES, INC. AND ENERGY RECOMMERCE, INC. ON OPINION MODIFYING DECISION 06-08-028 REGARDING INDEPENDENT PERFORMANCE MONITORING AND REPORTING REQUIREMENTS

The performance monitoring and reporting services ("PMRS") providers Fat Spaniel Technologies, Inc. and Energy Recommerce, Inc. submit the following comments on the Proposed Decision ("PD") of Commissioner Peevey authorized pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure. In addition to Fat Spaniel Technologies, Inc. and Energy Recommerce, Inc., the following companies all support these comments: CSS-Technologies, Draker Laboratories (fka Draker Solar Design, LLC), Glu Networks, PowerNab, and Pyramid Solar (jointly hereafter the PMRS Providers).

I. Removal of Independence

The PMRS Providers agree with the PD that independence is not the only way to ensure accurate solar energy performance data and protect ratepayer funds. However, it remains the lowest cost and simplest approach. Because PMRS providers that are not affiliated with the incentive recipient or photovoltaic ("PV") system vendors have nothing to gain by skewing the performance of PV solar systems, they can be trusted to report system performance accurately.

1

¹ Energy Recommerce, Inc. has authorized the undersigned to sign these comments on its behalf, pursuant to Commission Rule 1.8(d).

² All the named parties have assented to their inclusion in these comments.

The PD is correct in saying that independence limits competition but only from those who have a vested interest in overstating the production of PV systems for financial gain. There are many firms unaffiliated with self-interested entities who can offer PMRS services at a competitive price. The PD's assertion that the Commission's original independence requirement in D.06-08-028 may restrict innovation and increase the cost of PMRS services is just speculation and is unsupported in the record of this proceeding.³ The Commission recognized this flaw previously when it ordered, in D.07-07-028, the Program Administrators ("PA") to commission a study to "develop a research plan to assess the metering, monitoring and reporting market and will retain an independent third-party to conduct this study." The purpose of the study was to determine the cost of monitoring and reporting services and particularly the impact of independence on that market. However, as far as the PMRS Providers know, the study was never undertaken. This PD simply ignores the Commission's earlier order that more evidence is needed to substantiate Petitioning Parties' claims and takes the Petitioners' side in this debate. The Commission should not change its policy on independence without the benefit of that study.

The PD recognizes precedent for affiliated companies, namely the electric utilities themselves, to read water, electricity and gas meters, and restates with approval the comments of Enphase that the Commission relies upon equipment certification for trustworthy data. But the analogy is incomplete. The Commission has never allowed customers to self-report their electricity, gas and water usage no matter how thoroughly their meters are certified. Rather, the Commission actually relies upon its plenary power over the meter readers -- the utilities. This PD is taking a similar command and control approach by placing its trust in a complex

-

³ The PD agrees with Petitioners that the independence requirement "could restrict innovation in solar metering and monitoring services" but never provides an example of the innovations that affiliated, self-serving firms can provide in contrast to what independent PMRS providers can bring. This is another example of the conclusory reasoning of the PD.

⁴ D.07-07-028, Ordering Paragraph 4.

performance data provider ("PDP") qualification process rather than in a simpler market approach. In doing so, the Commission would choose complexity over simplicity and rationalization over common sense. And, the Commission is further neglecting to protect Expected Performance Based Buydown ("EPBB") recipients by applying neither independence nor PDP qualifications to the entities reporting on those systems.

The PD also asserts that the PDP protocols and standards "can ensure accuracy and integrity of solar performance data." However, the PD does not explain *how* it reaches this conclusion, or *why* the PA PDP Proposal "ensures" accuracy and integrity of solar performance data. It just concludes that it does even while recognizing that the PDP Proposal needs further "refinement". The reality is that the PDP Proposal is flawed and was not adequately vetted with industry experts in the Metering Subcommittee. While it is indeed deficient in the areas of validation rules, audit procedures, non-performance safeguards, and appeal procedures, its problems do not stop there. The PMRS Providers pointed out hundreds of problems with the PDP Proposal that are not addressed by the PD. Instead, the PD glibly states that further refinement and development "can ensure" data accuracy and integrity. There is no evidentiary basis in the record or rational explanation in the PD for this leap of logic.

The Commission should not abandon independence based upon the unsubstantiated claims of the Petitioning Parties. The Commission should not adopt this Proposed Decision because it is conclusory, does not make a reasoned decision why the PDP Proposal is better than independence for ensuring data integrity, and is not supported by substantial evidence in the record. Rather, the Commission should develop an adequate record on Petitioners' claims, as it said it would do in D.07-07-028, before accepting their arguments on faith. The PMRS

-

⁵ PD, Finding of Fact 10.

⁶ See, PD at Ordering Paragraph 5.

Providers request that the full Commission not adopt the Proposed Decision's abandonment of the simplest, most cost effective and proven means for assuring data accuracy and integrity until such time as evidence supports such a change.

II. PDP Requirements

The PMRS Providers agree with the PD that the original PDP Proposal is lacking. Since the PDP requirements will form the bedrock of our business we greatly value the suggestion in the PD for a process to move the PDP Proposal forward in a timely and organized fashion.

The PMRS Providers have but one principal comment with respect to the PDP requirements. Draft Ordering Paragraph #5 calls for the Energy Division to convene a workshop, resolve the problems with the flawed PDP Proposal, file a workshop report, and direct one of the Program Administrators to file an advice letter with all recommended changes. While the PMRS Providers are committed to moving the process forward as quickly as possible we do not believe that all this can be done capably in so short a time. Accordingly, the PMRS Providers recommend that the deadline for filing the advice letter be dropped and discretion granted to the Energy Division and the ALJ to file an improved PDP Proposal when an effective proposal is ready.

III. Interim PDP

A number of the PMRS Providers are currently and successfully submitting performance based incentives ("PBI") data to the Program Administrators at both CCSE and PG&E using procedures that follow closely the draft requirements for interim PBI data reporting put forth in the PD. A number of the PMRS Providers also hope to begin submitting data to SCE in a similar fashion.

Based on this active experience in submitting PBI data during this interim period the PMRS Providers herein request modifications to the interim procedures detailed in the PD to

correct a number of discrepancies between the interim procedures currently in use and the

interim procedures detailed in the PD. Failure to make these modifications will result in the

mandating of interim requirements that are out of sync with current practices. These changes are

detailed in Attachment A.

Additionally, to prevent confusion the PMRS Providers also request that an example

copy of the Spreadsheet that is reference in the interim requirements is made a part of the

Commission's final decision. An example copy of the Spreadsheet that is currently in use with

both CCSE and PG&E, as well as one expected to be in use shortly with SCE, appears in

Attachment B.

Dated: January 8, 2008

Respectfully submitted,

 $/_{\rm S}/$

William W. Westerfield, III

Ellison, Schneider & Harris, L.L.P.

2015 H Street

Sacramento, California 95814-3109

Telephone: (916) 447-2166 Facsimile: (916) 447-3512

Email: www@eslawfirm.com

Attorneys for Fat Spaniel Technologies, Inc.

5

ATTACHMENT A

This Attachment A contains redlined text of the Interim Rules included in the PD.

Notes supporting all requested changes are included in the accompanying footnotes.

APPENDIX A

INTERIM CSI PBI DATA TRANSFER RULES EFFECTIVE AUGUST 27, 2007

Interim Criterion for Submitting Production Data

- The Performance Data Provider (PDP) must receive authorization from the Program Administrator prior to submitting PBI Data Reports for customer incentive payments.
- The customer is responsible for contracting with an approved PDP. The PDP will provide actual production data from the customer-owned generation to the Program Administrator for determining monthly Performance Based Incentive (PBI) payments. Any delay in delivery of the data report to the Program Administrator may result in the incentive payment being a delayed.
- The Program Administrator will not pay incentives based on estimated data supplied by the PDP, nor will the Program Administrator estimate incentive payments in the absence of actual performance data.
- The PDP must submit performance data using the attached CSI PBI Data Report Worksheet
- The customer must select how they wish to receive the payment: On Bill, ACH Debit, or Check [Note: On-Bill payment is not currently available in PG&E's or SCE's service territories.] ⁷
- With respect to On-Bill payments, the meter must be read directly by the servicing utility provider. The timeline for On-Bill payments may vary from the process described below. [Note: This option is not currently available in PG&E's or SCE's service territories] 8

⁷ This text should be stricken as is pertains not to criteria used for data reporting but rather to the payment relationship between the PAs and the CSI participant. These payment arrangements are made between the customer and the Program Administrator and as such inclusion of this text herein is not needed and confusing.

⁸ This text should be stricken as is pertains not to criteria used for data reporting but rather to the payment relationship between the PAs and the CSI participant. These payment arrangements are made between the customer and the Program Administrator and as such inclusion of this text herein is not needed and confusing.

Instructions for Completing the Spreadsheet:

- 1. For PG&E and CCSE a A customer's PBI report period begins on midnight (i.e. 00:00)9, of the 1st or 15-16th₁₀ day of the month, whichever is earliest, following the date of the incentive claim approval letter. For example, if the date on the incentive claim approval letter is June 7, 2007, the start date of the new PBI data reporting period will be midnight (i.e. 00:00), June 15-16th, 2007. If the date on the final approval letter is June 23, 2007, the start date would be midnight (i.e. 00:00), July 1, 2007. For SCE all PBI reporting periods will begin on the 1st and end on the last day of each month.¹¹
- 2. The PBI data reporting period will be begin on the date described above and will end on the same date and time of the following month. For the first example, the PBI reporting period would begin on midnight (i.e. 00:00), June 15-16th, 2007 and end on midnight (i.e. 00:00), July 15-16, 2007.
- 3. A PBI data report must be received by the appropriate Program Administrator for a project no later than close of business (COB) five days following the end of the reporting period. This equates to COB the five 5th or 20th of each month depending on the customers PBI reporting period¹². As per Section 4.4.5.2 of the CSI Handbook, the Program Administrator has 30 days from the end of the PBI data report period to provide payment.
- 4. During this interim period the customer PDP must provide all PBI data reports via email to their the customer's respective Program Administrator¹³. The appropriate Program Administrator contact information is listed at the end of these instructions. A response email will be sent by the Program Administrator to confirm receipt of the PBI data report.
- 5. The yellow fields in the CSI PBI Data Reporting Worksheet require input by the customer or PDP¹⁴ as described below:
 - a. Project Info this section identifies all the project details for the Program

⁹ Since "midnight" is an ambiguous term which can be used to indicate both the beginning of the day as well as the end of the day appropriate clarifying text is should be added following each reference. Accordingly, "00:00" is being used to refer to midnight at the start of a given date and 24:00 for the end of a day.

¹⁰ Per discussions with Jim Baak of PG&E and Jon Bonk-Vasko of CCSE the second reporting period of each month begins on the 16th not the 15th. This change is reflected a number of times in the document without additional notation.

¹¹ Per discussions with SCE.

¹² Typographical correction.

¹³ Changes to this sentence are needed to reflect the fact that only PDP's should be transmitting data to the PAs. If a CSI recipient, who is not otherwise a PDP, is able to transmit data directly to the PAs this introduces the risk of data manipulation which defeats the purpose of the PDP requirements.

¹⁴ Addition required to reflect PDP's role in reporting as is currently the practice with both PG&E and CCSE and planned for SCE.

Administrator to confirm which project and month to which production data and payment will be assigned. It also includes the contact information of the Performance Data Provider (PDP) in the event the Program Administrator identifies a problem with the PBI data report.

- i. Data Report Number this is the effective report number out of the scheduled 60 payments.
- ii. Primary/Secondary Incentive Level for projects that are approved to receive incentives from two incentive levels OR projects that are prorated due to size or project cost restrictions, the splits established by the Program Administrator and reported on the incentive claim approval letter will be entered here.
- b. Production Report this section contains all the pertinent reporting information for the PBI reporting period.
 - i. Meter Blocks The blocks numbered from one to four represent the fields available for each meter of the specified project. Most projects will only fill out the first block corresponding to a single performance meter onsite. If the specified Project ID has more than one performance meter associated with it, use the additional blocks as needed. Please contact your Program Administrator if more than four blocks are needed.
 - ii. Utility and Meter Information Input the utility account number that corresponds to the approved PBI meter. Input the utility assigned PBI meter number. If no utility PBI meter number was provided, input the meter's serial number and preface the serial number with an "SN." For example, SN013257.
 - iii. Start/End Read Cumulative kWh These numbers represent the cumulative count of the total kWh production of the generation system. This is NOT the 15-min kWh production read. The End Read of each PBI data report should be the same as the Start Read of the following period.
 - iv. Optional 15-minute Data Report the second tab on the spreadsheet is available for PDPs to provide the full log of 15-min interval kWh production data to the Program Administrator if possible. The Program Administrator will require PDPs to submit all historical 15-minute interval data that was not reported during the interim PBI

payment process period using the EDI 867 protocol. Therefore, PDPs are strongly encouraged to provide this data during the interim period.

- 1. 15-minute kWh Read this data must be actual production including any meter multipliers. Do not provide raw data that has been processed without applicable meter multipliers.
- 2. Timestamp each 15-minute read must also be accompanied by a corresponding date and timestamp, each in separate columns adjacent to the data read. The date stamp should be in the DD/MM/YYYY format and the timestamp is to be in the 24-hour format HH:MM:SS.
- 6. The following data validation rules will apply to all data submitted for PBI payments using these interim procedures:
 - a. Time Check of Meter Reading Device/System
 - b. Meter Identification Check
 - c. Time Check of Meter
 - d. Pulse Overflow Check

removed from the interim requirements.

- e. Test Mode Check
- f. Sum Check 15

END OF ATTACHMENT A

¹⁵ This text should be stricken as neither CCSE nor PG&E requires the application of these data validation rules during this interim period. These rules should also be removed from these requirements for a number of additional reasons: 1) these rules have not been specifically defined and 2) depending on the type of meter used some of these rules can not be applied (i.e. a Pulse Overflow check can not be performed to a non-pulse meter). Accordingly, this section should be stricken in its entirety and these rules should be

ATTACHMENT B

This Attachment B contains example copies of the Spreadsheets that are referenced in, but not attached to, the interim requirements and is currently in use with both CCSE and PG&E expected to be in use shortly with SCE. These spreadsheets were provided by the PAs.



California Solar Initiative **Performance Based Incentive Data Report Worksheet**

PROJECT ID				
DATE SUBMITTED				
DATA REPORT NUMBER		of 60		
PRIMARY INCENTIVE LEVEL	\$ -	/kWh	Weight 1:	100%
SECONDARY INCENTIVE LEVEL	\$ - 12	/kWh	Weight 2:	0%
PERFORMANCE DATA PROVIDER			32	
PDP CONTACT NAME				
PDP TELEPHONE#				
PDP EMAIL ADDRESS				

PRODUCTION REPORT

-	Sub-Total kWh Produced	0	Total Read Time	days	
	End Read kWh				
	Start Read kWh				
4	Meter Number (if applicable)			Date Read	Timestamp
	Utility Account Number			Market Service Control	20000

Utility Account Number				
Meter Number (if applicable)			Date Read	Timestamp
Start Read kWh				
End Read kWh				
Sub-Total kWh Produced	0	Total Read Time	days	

Utility Account Number				
Meter Number (if applicable)			Date Read	Timestamp
Start Read kWh				
End Read kWh				
Sub-Total kWh Produced	0	Total Read Time	days	

Utility Account Number				
Meter Number (if applicable)		<u> </u>	Date Read	Timestamp
Start Read kWh				
End Read kWh				H
Sub-Total kWh Produced	0	Total Read Time	days	

TOTAL kWh PRODUCED	0
TOTAL ESTIMATED INCENTIVE PAYMENT	\$ -



California Solar Initiative Performance Based Incentive Data Report Worksheet

PROJECT INFO

PROJECT ID				
DATE SUBMITTED				
DATA REPORT NUMBER		of 60		
PRIMARY INCENTIVE LEVEL	\$ -	/kWh	Weight 1:	100%
SECONDARY INCENTIVE LEVEL	\$ -	/kWh	Weight 2:	0%
PERFORMANCE DATA PROVIDER				
PDP CONTACT NAME				
PDP TELEPHONE #				
PDP EMAIL ADDRESS				

PDP CONTA	CINAME				
PDP TELEPI	HONE #				
PDP EMAIL	ADDRESS				
PRODUCT	ION REPORT				
4	Utility Account Number Meter Number (if applicable)			Date Read	Timestamp
	Start Read kWh End Read kWh				
	Sub-Total kWh Produced	0	Total Read Time	days	
	Utility Account Number Meter Number (if applicable)			Date Read	Timestamp
2	Start Read kWh End Read kWh				
	Sub-Total kWh Produced	0	Total Read Time	days	
2	Utility Account Number Meter Number (if applicable) Start Read kWh			Date Read	Timestamp
J	End Read kWh				
	Sub-Total kWh Produced	0	Total Read Time	days	
	Utility Account Number				
4	Meter Number (if applicable)			Date Read	Timestamp
1	Start Read kWh				
4	End Read kWh				
	Sub-Total kWh Produced	0	Total Read Time	days	
		тот	AL kWh PRODUCED		1
	TOTAL E	STIMATED II	NCENTIVE PAYMENT	\$	-



California Solar Initiative Performance Based Incentive Data Report Worksheet

PROJECT ID

PROJECT IL)				
DATE SUBM		=			
	RT NUMBER		of 60		
	ICENTIVE LEVEL	\$ -	/kWh	Weight 1:	100%
	Y INCENTIVE LEVEL	\$ -	/kWh	Weight 2:	0%
	NCE DATA PROVIDER			<i>y.</i> 90%	
PDP CONTA		5			
PDP TELEP	CONTRACTOR OF THE CONTRACTOR O				
PDP EMAIL:	ADDRESS				
PRODUCT	ION REPORT				
	Utility Account Number			Addresses and another	anarus su
1	Meter Number (if applicable)	7		Date Read	Timestamp
	Start Read kWh End Read kWh				
	Sub-Total kWh Produced	0	Total Read Time	days	
	I William O and a sund blooms by an				
	Utility Account Number Meter Number (if applicable)			Date Read	Timestamp
7	Start Read kWh			Butt Neau	rinicatamp
	End Read kWh				
	Sub-Total kWh Produced	0	Total Read Time	days	
	Utility Account Number	E		54.438750685 - 1944-50059850	A SHE SECRET OF THE SECRET OF
2	Meter Number (if applicable)			Date Read	Timestamp
. 5	Start Read kWh End Read kWh				
				A11 - 111 -	
	Sub-Total kWh Produced	0	Total Read Time	days	
	Utility Account Number			1	
04 0.	Meter Number (if applicable)			Date Read	Timestamp
1	Start Read kWh			- LIU I LOUIU	
	End Read kWh	-			
=27	Sub-Total kWh Produced	0	Total Read Time	days	

TOTAL kWh PRODUCED

TOTAL ESTIMATED INCENTIVE PAYMENT \$

END OF ATTACHMENT B

Certificate of Service

I hereby certify that I have this day served a copy of "Comments Of Fat Spaniel Technologies, Inc. And Energy Recommerce, Inc. On Opinion Modifying Decision 06-08-028 Regarding Independent Performance Monitoring And Reporting Requirements" on all known parties to R.06-03-004 by transmitting an e-mail message with the document attached to each party named in the official service list. Parties without e-mail addresses were mailed a properly addressed copy by first-class mail with postage prepaid.

Executed on January 8, 2008 at Sacramento, California

	/s/	
Eric	Janssen	

Service List R.06-03-004 January 8, 2008

david.kopans@fatspaniel.com jeff@grosolar.com tim@drakerlabs.com john.schuster@utcpower.com kmccrea@sablaw.com info@solarpathfinder.com manjusuri@yahoo.com lglover@solidsolar.com spatrick@sempra.com hchoy@isd.co.la.ca.us npedersen@hanmor.com bob@energydynamix.net

susan.munves@smgov.net mluevano@globalgreen.org ph@phatmedia.com steve@energyinnovations.com djamison@capstoneturbine.com douglass@energyattorney.com akbar.jazayeri@sce.com amber.dean@sce.com Case.Admin@sce.com mike.montoya@sce.com olivia.samad@sce.com rkmoore@gswater.com brad@bradburkearchitect.com dfield@openenergycorp.com

troberts@sempra.com andrew.mcallister@energycenter.drgerry@norcalsolar.org irene.stillings@energycenter.org lschavrien@semprautilities.com kirk@NoElectricBill.com gbeck@etfinancial.com rod.larson@sbcglobal.net dhardy@cabrilloedc.org legislative@recsolar.com shallin@recsolar.com

Dan@EnergySmartHomes.net

michaely@sepcor.net

pepper@cleanpowermarkets.com tomb@crossborderenergy.com

mdjoseph@adamsbroadwell.com stephen@seiinc.org nsuetake@turn.org dil@cpuc.ca.gov

stephen.morrison@sfgov.org theresa.mueller@sfgov.org emackie@gridalternative.org

sls@a-klaw.com

matt.golden@sustainablespaces.cgirdie.blunden@sunpowercorp.com ek@a-klaw.com

ebrussell@suntechamerica.com

placourciere@thelen.com arno@recurrentenergy.com bcragg@goodinmacbride.com enriqueg@lif.org

mmazur@3 phases Renewables.com js queri@good in macbride.comjwiedman@goodinmacbride.com jluckhardt@downeybrand.com mday@goodinmacbride.com tmacbride@goodinmacbride.com ksoares@usc.edu

> jkarp@winston.com sarahtuntland@yahoo.com rjl9@pge.com

sww9@pge.com ssmyers@att.net

I brown246@hotmail.com cp@kacosolar.com

bkc7@pge.com grant.kolling@cityofpaloalto.org lex@consumercal.org

anewman@solarcity.com gopal@recolteenergy.com

info@calseia.org jharris@volkerlaw.com

elarsen@rcmdigesters.com gmorris@emf.net

robertg@greenlining.org thaliag@greenlining.org pucservice@dralegal.org janice@strategenconsulting.com

jpross@sungevity.com gary@sunlightandpower.com

tdr-hmw@sbcglobal.net sebesq@comcast.net

ronnie@energyrecommerce.com rbelur@enphaseenergy.com michaelboyd@sbcglobal.net

rob@consol.ws

johnrredding@earthlink.net michaelkyes@sbcglobal.net jwmctarnaghan@duanemorris.com/schwent@sbcglobal.net cmkehrein@ems-ca.com jjensen@kirkwood.com

> meganmmyers@yahoo.com glw@eslawfirm.com janmcfar@sonic.net

j.marston@suntechnics.com

www@eslawfirm.com www@eslawfirm.com cte@eslawfirm.com lmh@eslawfirm.com kmills@cfbf.com

atrowbridge@daycartermurphy.com

ksheldon@sma-america.com

notice@psrec.coop markgsp@sbcglobal.net bills@clearEdgepower.com ryan.flynn@pacificorp.com rogerlaubacher@pvpowered.com

pbrehm@infiniacorp.com hfhunt@optonline.net michelle.breyer@gs.com obrienc@sharpsec.com

rdennis@knowledgeinenergy.com cswoollums@midamerican.com

jimross@r-c-s-inc.com tcarlson@reliant.com ghinners@reliant.com bbaker@summitblue.com dprall@solarpowerinc.net kstokes@solarpowerinc.net

kjsimonsen@ems-ca.com eshafner@solel.com kennyk@solel.com emello@sppc.com tdillard@sierrapacific.com robert.pettinato@ladwp.com cfaber@semprautilities.com Marshall.Taylor@dlapiper.com joel.davidson@sbcglobal.net akawnov@yahoo.com david@nemtzow.com tbardacke@globalgreen.org ron@relenergy.com sendo@ci.pasadena.ca.us slins@ci.glendale.ca.us THAMILTON5@CHARTER.NET Jose.atilio@gmail.com David.Townley@townleytech.com diane_fellman@fpl.com bjeider@ci.burbank.ca.us mponceatty@aol.com mkay@aqmd.gov annette.gilliam@sce.com james.lehrer@sce.com paul.kubasek@sce.com Robert.F.LeMoine@sce.com jyamagata@semprautilities.com rishii@aesc-inc.com yonah@powerbreathing.com lwrazen@sempraglobal.com

liddell@energyattorney.com mshames@ucan.org jim@dshsolar.com rob@teamryno.com usdepic@gmail.com scottanders@sandiego.edu cmanson@semprautilities.com cmanzuk@semprautilities.com jennifer.porter@energycenter.org jwwd@pge.com john.supp@energycenter.org jon.bonk-vasko@energycenter.orgben@solarcity.com sephra.ninow@energycenter.org jpigott@optisolar.com

bautistafaith@yahoo.com

bob.ramirez@itron.com

ofoote@hkcf-law.com ekgrubaugh@iid.com vincent@vincentbattaglia.com traceydrabant@bves.com gwiltsee@dricompanies.com TFlanigan@EcoMotion.us LowryD@sharpsec.com johnperlin@physics.ucsb.edu ilanderos@proteusinc.org lfultz@sbcglobal.net mjwms@calwes.com mstout@unlimited-energy.com cbressanitanko@rsgrp.com marigruner@yahoo.com zingher@ieee.org mark.mah@glunetworks.com jrichman@bloomenergy.com felazzouzi@gridalternatives.org fsmith@sfwater.org mhyams@sfwater.org zfranklin@gridalternatives.org filings@a-klaw.com sdhilton@stoel.com

scott.son@newresourcebank.com mwbeck@lbl.gov kfox@wsgr.com lauren.purnell@pge-corp.com LATc@pge.com

david.felix@mmarenew.com

abonds@thelen.com

S2B9@pge.com CEM@newsdata.com joshdavidson@dwt.com sara@solaralliance.org jhamrin@resource-solutions.org CLHs@pge.com

paul@tiogaenergy.com cpucsolar@rahus.org

tomhoff@clean-power.com

pthompson@summitblue.com dietrichlaw2@earthlink.net ted@energy-solution.com nehemiah.stone@kema.com nellie.tong@us.kema.com karin.corfee@kema.com phillip_mcleod@lecg.com jody_london_consulting@earthlink.net ciee@ucop.edu mrw@mrwassoc.com ken.krich@ucop.edu rschmidt@bartlewells.com adamb@greenlining.org bobakr@greenlining.org cchen@ucsusa.org jesser@greenlining.org stephaniec@greenlining.org ksmith@powerlight.com kate@sunlightandpower.com Sarah@sunlightandpower.com elvine@lbl.gov

andy.vanhorn@vhcenergy.com

sewayland@comcast.net

sbeserra@sbcglobal.net

josephhenri@hotmail.com

GLBarbose@LBL.gov MABolinger@lbl.gov NJPadgett@lbl.gov rhwiser@lbl.gov matt.scullin@newresourcebank.cokmotsund@berkeley.edu

Dan.Thompson@SPGsolar.com eric.carlson@spgsolar.com iris.chan@spgsolar.com joelene.monestier@spgsolar.com darmanino@co.marin.ca.us

dowen@ma.org rb@greenrockcapital.com

juliettea7@aol.com

jcluboff@lmi.net bstewart@solarcraft.com Elizabeth.Ferris@spgsolar.com

barbara@earthskysolar.com

sberlin@mccarthylaw.com jm3@cpuc.ca.gov njfolly@tid.org jjw@cpuc.ca.gov nick@npcsolar.com jxm@cpuc.ca.gov rob@dcpower-systems.com cln@cpuc.ca.gov janh@pacpower.biz jci@cpuc.ca.gov rmccann@umich.edu jf2@cpuc.ca.gov demorse@omsoft.com lp1@cpuc.ca.gov saeed.farrokhpay@ferc.gov meb@cpuc.ca.gov kdusel@navigantconsulting.com mvc@cpuc.ca.gov cpucrulings@navigantconsulting.comts@cpuc.ca.gov gpickering@navigantconsulting.comlc@cpuc.ca.gov lpark@navigantconsulting.com nao@cpuc.ca.gov scott.tomashefsky@ncpa.com pw1@cpuc.ca.gov george@utilityconservationservice**p.sd@**cpuc.ca.gov karly@solardevelop.com tdp@cpuc.ca.gov bernadette@environmentcaliforniappegtingill@caiso.com

dcarroll@downeybrand.com mscheibl@arb.ca.gov
d.miller@suntechnics.com gyee@arb.ca.gov
h.dowling@suntechnics.com brd@cpuc.ca.gov
jwimbley@csd.ca.gov dks@cpuc.ca.gov

rachel@ceert.org edward.randolph@asm.ca.gov blaising@braunlegal.com pnarvand@energy.state.ca.us

Sgupta@energy.state.ca.us rberke@csd.ca.gov

mrawson@smud.org smiller@energy.state.ca.us

sfrantz@smud.org zca@cpuc.ca.gov

abcstatelobbyist@sbcglobal.net

karen@klindh.com
Tenorio@sunset.net

TERENCE PARKER
UNITED SOLAR OVONIC,
LLC

jmaskrey@sopogy.com 3800 LAPEER ROAD deb@a-klaw.com AUBURN HILLS MI 48326

californiadockets@pacificorp.com

kyle.l.davis@pacificorp.com HARVEY M. EDER
George.Simons@itron.com PUBLIC SOLAR POWER
patrick.lilly@itron.com COALITION

jack.burke@energycenter.org arr@cpuc.ca.gov 1218 12TH STREET, NO. 25 SANTA MONICA CA 90401

as2@cpuc.ca.gov

aes@cpuc.ca.gov

tam@cpuc.ca.gov

css@cpuc.ca.gov

dsh@cpuc.ca.gov

ANZA ELECTRIC

COOPERATIVE, INC

58470 HIGHWAY 371

ANZA CA 92539-1909

dot@cpuc.ca.gov eah@cpuc.ca.gov CALIFORNIA
ENVIRONMENTAL
PROTECTION
PO BOX 2815
SACRAMENTO CA 95812